

REMARKS

In reply to the Office Action dated October 14, 2009, please reconsider the present application in view of the above amendments and the following remarks. Applicant thanks the Examiner for carefully considering the application.

Status of Claims

After this amendment claims 1-31 are currently pending. Claims 1, 8 and 31 are independent.

Claims 1, 5, 8, 9, 17 and 27-31 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,177,931 (“Alexander”) in view of U.S. Patent 6,457,010 issued to Eldering et al. (“Eldering”). Claims 2-4, 10-13, 16 and 22-26 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Alexander and Eldering in view of U.S. Patent Application Pub. No. 2005/0235318 (“Grauch”). Claims 6, 7, 14, 15 and 18-21 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Alexander and Eldering in view of U.S. Patent No. 6,981,040 (“Konig”).

Claim Amendments

Claims 1, 8 and 31 are amended. No new matter is added.

Rejections under 35 U.S.C. § 103(a)

Claims 2-4, 10-13, 16 and 22-26

Rejections of claims 2-4, 10-13, 16 and 22-26 are respectfully traversed because for at least the following reasons, Alexander and Grauch, whether considered separately or in

combination, fail to show or suggest the claimed invention.

According to MPEP §2142

[t]he key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious. The Supreme Court in *KSR International Co. v. Teleflex Inc.*, 550 U.S. ___, ___, 82 USPQ2d 1385, 1396 (2007) noted that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit. The Federal Circuit has stated that ‘rejections on obviousness cannot be sustained with mere conclusory statements; instead there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.’ *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006). See also *KSR*, 550 U.S. at ___, 82 USPQ2d at 1396 (quoting Federal Circuit statement with approval).

Further, according to MPEP §2143, “[T]he Supreme Court in *KSR International Co. v. Teleflex, Inc.* 550 U.S. ___, ___, 82 USPQ2d 1395-1397 (2007) identified a number of rationales to support a conclusion of obviousness which are consistent with the proper “functional approach” to the determination of obviousness as laid down in *Graham*.” And, according to MPEP §2143.01, [o]bviousness can be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so. *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1335 (Fed. Cir. 2006). Further, “[t]he mere fact that references *can* be combined or modified does not render the resultant combination obvious unless the results would have been predictable to one of ordinary skill in the art.” *KSR International Co. v. Teleflex, Inc.* 550 U.S. ___, ___, 82 USPQ2d 1385, 1396 (2007).

Additionally, according to MPEP §2143

[a] statement that modification of the prior art to meet the claimed invention would have been “*well within the ordinary skill of the art at the time the claimed invention was made*” because the references relied upon teach that all aspects of the claimed invention were individually known in the art is not sufficient to establish *prima facie* case of obviousness without some objective reason to combine the teachings of the references. *Ex parte Levengood*, 28 USPQ2d 1300 (Pat. App. & Inter. 1993).

Independent claim 1 requires, in part,

selecting a plurality of predetermined demographic groups including externally selected characteristics including historical data from a plurality of actual viewers and historical actual electronic program guide (EPG) data to associate viewers with; recording a viewer's monitor behavior with data item variables including watched channel, watching start time, and at least one of watching date and watching duration; associating a particular demographic group of the plurality of demographic groups with the viewer; from a server-side system, inputting historical data information regarding demographic information tagged to the viewer for the viewer's demographic group; inputting preferred program guide information for the demographic group; and at a client-side system, associating the program guide information with the viewer's monitor behavior and defining therefrom a knowledge base with demographic group cluster information of the viewer in terms of statistical state machine transition models (emphasis added).

Independent claim 8 requires, in part,

selecting a plurality of predefined demographic groups including externally selected characteristics including historical data from a plurality of actual viewers and historical actual electronic program guide (EPG) data, the demographic groups defined by viewing monitor information including watch date, watch start time, watch duration and watch channel, and associated demographic information; associating a particular demographic group of the plurality of demographic groups with each viewer based on monitor behavior; capturing state transitions by defining monitor behavior in a plurality of statistical state machine families each representing viewing behavior of the particular demographic group; at a client-side system, combining the statistical state machine families into global statistical state machines defined in a global probability density function; updating and reinforcing the global probability

density function upon determining that a given probability function has a higher confidence level than a previous probability density function; and outputting a global profile based on the global probability density function, wherein the global profile is suitable for determining programming content of a television server for classes of viewers (emphasis added).

Independent claim 31 requires, in part,

selecting externally generated groups defined by externally selected demographics including historical data from a plurality of actual viewers and historical actual electronic program guide (EPG) data to associate viewers with; recording a current viewer's monitor behavior with data item variables including watched channel, watching start time, and at least one of watching date and watching duration; associating a particular group of the externally generated groups with the current viewer based on the current viewer's monitor behavior; from a server-side system, inputting historical data information regarding demographic information and monitor behavior tagged to the viewer for the viewer's particular associated group; inputting preferred program guide information for the particular associated group; and at a client-side system, associating the program guide information with the viewer's monitor behavior and defining therefrom a knowledge base with associated group cluster information of the viewer in terms of statistical state machine transition models, wherein the selected generated groups are predefined externally to the client-side system and the server-side system (emphasis added).

Alexander discloses an EPG system that determines user characteristics. Alexander further discloses determining characteristics of a viewer for a viewer's individual profile and can compare one viewer's individual profile to other individual viewer's profiles (where the profiles may contain some demographical information (Alexander, col. 30, lines 17-44).

Distinguishable, the present invention uses predetermined demographic groups from outside resources that include *historical data from actual viewers and historical actual electronic program guide (EPG) data* that an advertiser or content provider is interested in (i.e., externally preselected) (see pub. application par. [0094]).

Eldering teaches that logical heuristic rules are obtained from sociological or

psychological studies (externally selected characteristics). In Eldering the viewing characteristics are linked to demographics using the external rules, and also linking particular programs to a particular audience. Eldering then teaches generating a viewer profile based on applying the heuristic rules to the viewing characteristics. Distinguishable, the present invention uses actual viewer data, not rules obtained from psychological or sociological studies (see, e.g., par. [0094]). The present invention obtains behavioral data from a viewer and uses that behavioral data for associating the viewer with the externally obtained viewer data.

It is clear that any resulting combination of Alexander and Eldering does not teach or suggest “*a plurality of predefined demographic groups including externally selected characteristics including externally selected characteristics including historical data from a plurality of actual viewers and historical actual electronic program guide (EPG) data, the demographic groups defined by viewing monitor information including watch date, watch start time, watch duration and watch channel, and associated demographic information*” (emphasis added) as required, in part, by amended claims 1 and 8, or “*selecting externally generated groups defined by externally selected demographics including historical data from a plurality of actual viewers and historical actual electronic program guide (EPG) data to associate viewers with; recording a current viewer's monitor behavior with data item variables including watched channel, watching start time, and at least one of watching date and watching duration; associating a particular group of the externally generated groups with the current viewer based on the current viewer's monitor behavior*” (emphasis added) as required, in part, by amended claim 31.

Moreover, in Alexander the internal viewer profiles that Alexander compares a particular

viewer with are not grouped. Further, the viewer profiles of other viewers are not selected demographic groups used to associate viewers with. The other viewer profiles are simply characteristics and preferences of other individual viewers that are used for a comparison in order to determine the probability that a particular viewer may be interested in a particular subject, product, theme, movie, episode, etc. (Alexander, col. 30, lines 38-44).

Therefore, even if the teachings of Alexander are combined with Eldering, the result would not teach, disclose or suggest Applicant's amended claim 1 limitations of "*selecting a plurality of predetermined demographic groups including externally selected characteristics including externally selected characteristics including historical data from a plurality of actual viewers and historical actual electronic program guide (EPG) data to associate viewers with*" (emphasis added), Applicant's amended claim 8 limitations of "*selecting a plurality of predefined demographic groups including externally selected characteristics including externally selected characteristics including historical data from a plurality of actual viewers and historical actual electronic program guide (EPG) data, the demographic groups defined by viewing monitor information including watch date, watch start time, watch duration and watch channel, and associated demographic information*" (emphasis added), nor Applicant's amended claim 31 limitations of "*selecting externally generated groups defined by externally selected demographics including historical data from a plurality of actual viewers and historical actual electronic program guide (EPG) data to associate viewers with; recording a current viewer's monitor behavior with data item variables including watched channel, watching start time, and at least one of watching date and watching duration; associating a particular group of the externally generated groups with the current viewer based on the current viewer's monitor*

behavior” (emphasis added).

Further, the assertions made in the Office Action on pages 4-9 that lead to a conclusion of obviousness are not explicit and the basic requirements of an articulated rationale under MPEP §2142 cannot be found. Additionally, since neither Alexander, Eldering, and therefore, nor the combination of the two, teach, disclose or suggest all the limitations of Applicant's claims 1, 8 and 31, as listed above, Applicant's claims 1, 8 and 31 are not obvious over Alexander in view of Eldering since a *prima facie* case of obviousness has not been met under MPEP §2143. Thus, claims 1, 8 and 31 of the present application are patentable over Alexander and Eldering for at least the reasons set forth above. Additionally, the claims that directly or indirectly depend on amended claims 1 and 8, namely claims 5 and 27-30, and 9 and 17, respectively, are also patentable over Alexander and Eldering for the same reasons as asserted above.

Accordingly, withdrawal of the rejections of claims 1, 5, 8, 9, 17 and 27-31 is respectfully requested.

Claims 2-4, 10-13, 16 and 22-26

Rejections of claims 2-4, 10-13, 16 and 22-26 are respectfully traversed because for at least the following reasons, Alexander, Eldering and Grauch, whether considered separately or in combination, fail to show or suggest the claimed invention.

Applicant's claims 2-4 and 22-24 depend from Applicant's amended claim 1.

Applicant's claims 10-13, 16 and 25-26 depend from Applicant's amended claim 8. As asserted above, independent claim 1 requires, in part,

selecting a plurality of predetermined demographic groups including externally selected characteristics including externally selected characteristics including historical data from a plurality of actual viewers and historical actual electronic program guide (EPG) data to associate viewers with; recording a viewer's monitor behavior with data item variables including watched channel, watching start time, and at least one of watching date and watching duration; associating a particular demographic group of the plurality of demographic groups with the viewer; from a server-side system, inputting historical data information regarding demographic information tagged to the viewer for the viewer's demographic group; inputting preferred program guide information for the demographic group; and at a client-side system, associating the program guide information with the viewer's monitor behavior and defining therefrom a knowledge base with demographic group cluster information of the viewer in terms of statistical state machine transition models (emphasis added),

and independent claim 8 requires, in part,

selecting a plurality of predefined demographic groups including externally selected characteristics including externally selected characteristics including historical data from a plurality of actual viewers and historical actual electronic program guide (EPG) data, the demographic groups defined by viewing monitor information including watch date, watch start time, watch duration and watch channel, and associated demographic information; associating a particular demographic group of the plurality of demographic groups with each viewer based on monitor behavior; capturing state transitions by defining monitor behavior in a plurality of statistical state machine families each representing viewing behavior of the particular demographic group; at a client-side system, combining the statistical state machine families into global statistical state machines defined in a global probability density function; updating and reinforcing the global probability density function upon determining that a given probability function has a higher confidence level than a previous probability density function; and outputting a global profile based on the global probability density function, wherein the global profile is suitable for determining programming content of a television server for classes of viewers (emphasis added).

As asserted above, Alexander in view of Eldering does not teach the limitations contained in independent claims 1 and 8.

Grauch is relied on for disclosing determining a viewer's viewing habits by tracking clickstream data (Office Action, page 9). Grauch, however, does not teach, disclose or suggest *“selecting a plurality of predetermined demographic groups including externally selected characteristics including externally selected characteristics including historical data from a plurality of actual viewers and historical actual electronic program guide (EPG) data to associate viewers with”* (emphasis added), as required, in part, by independent claims 1 and 8, respectively.

Applicant notes that Grauch discloses that the individual collected data can be used for correlation to demographic data, which is different from being used to determine demographic data because correlating data to demographic data does not effect the demographic data, at all. (see Grauch, Abstract). Grauch simply tracks changes in use of a multimedia device to generate ratings and may also use the tracked changes for correlation with demographics data for marketing analysis. Marketing analysis, such as whether a viewer watches advertisements, is clearly different than associating a viewer with a demographic group that is defined by *viewing monitor information including watch date, watch start time, watch duration and watch channel, and associated demographic information, and associating a viewer with a particular demographic group based on viewer monitor behavior* (emphasis added).

Therefore, even if the teachings of Alexander and Eldering are combined with Grauch, the result would not teach, disclose or suggest Applicant's amended claim 1 limitations of

“selecting a plurality of predetermined demographic groups including externally selected characteristics including externally selected characteristics including historical data from a plurality of actual viewers and historical actual electronic program guide (EPG) data to associate viewers with” (emphasis added), nor Applicant’s amended claim 8 limitations of *“selecting a plurality of predefined demographic groups including externally selected characteristics including externally selected characteristics including historical data from a plurality of actual viewers and historical actual electronic program guide (EPG) data, the demographic groups defined by viewing monitor information including watch date, watch start time, watch duration and watch channel, and associated demographic information”* (emphasis added).

Further, the assertions made in the Office Action on pages 10-14 that lead to a conclusion of obviousness are not explicit and the basic requirements of an articulated rationale under MPEP §2142 cannot be found. Additionally, since the combination of Alexander, Eldering and Grauch, does not teach, disclose or suggest all the limitations of Applicant's claims 1 and 8, as listed above, Applicant's claims 1 and 8 are not obvious over Alexander and Eldering in view of Grauch since a *prima facie* case of obviousness has not been met under MPEP §2143. Thus, claims 1 and 8 of the present application are patentable over Alexander, Eldering and Grauch for at least the reasons set forth above. Additionally, the claims that directly or indirectly depend on amended claims 1 and 8, namely claims 2-4 and 22-24, and 10-13, 16 and 25-26, respectively, are also patentable over Alexander, Eldering and Grauch for the same reasons as asserted above.

Accordingly, withdrawal of the rejections of claims 2-4, 10-13, 16 and 22-26 is respectfully requested.

Claims 6-7, 14-15 and 18-21

Rejections of claims 6-7, 14-15 and 18-21 are respectfully traversed because for at least the following reasons, Alexander, Eldering and Konig, whether considered separately or in combination, fail to show or suggest the claimed invention.

Applicant's dependent claims 6-7 and 18-19 either directly or indirectly depend on amended claim 1. Applicant's dependent claims 14-15 and 20-21 either directly or indirectly depend on amended claim 8. Applicant has addressed Alexander above regarding amended claims 1 and 8.

Konig is relied on for disclosing parameterizing a viewer's monitor behavior with a double random pseudo hidden Markov process (Office Action, page 12). Therefore, even if the teachings of Konig are combined with Alexander and Eldering, the resulting invention would still not teach, disclose or suggest Applicant's amended claim 1 limitations of "*selecting a plurality of predetermined demographic groups including externally selected characteristics including externally selected characteristics including historical data from a plurality of actual viewers and historical actual electronic program guide (EPG) data to associate viewers with*" (emphasis added), nor Applicant's amended claim 8 limitations of "*selecting a plurality of predefined demographic groups including externally selected characteristics including externally selected characteristics including historical data from a plurality of actual viewers and historical actual electronic program guide (EPG) data, the demographic groups defined by viewing monitor information including watch date, watch start time, watch duration and watch channel, and associated demographic information*" (emphasis added).

Further, the assertions made in the Office Action on pages 15-19 that lead to a conclusion of obviousness are not explicit and the basic requirements of an articulated rationale under MPEP §2142 cannot be found. Additionally, since the combination of Alexander, Eldering and Konig, does not teach, disclose or suggest all the limitations of Applicant's claims 1 and 8, as listed above, Applicant's claims 1 and 8 are not obvious over Alexander and Eldering in view of Konig since a *prima facie* case of obviousness has not been met under MPEP §2143. Thus, claims 1 and 8 of the present application are patentable over Alexander, Eldering and Konig for at least the reasons set forth above. Additionally, the claims that directly or indirectly depend on amended claims 1 and 8, namely claims 6-7 and 18-19, and 14-15, 16 and 20-21, respectively, are also patentable over Alexander, Eldering and Konig for the same reasons as asserted above.

Accordingly, withdrawal of the rejections of claims 6-7, 14-15 and 18-21 is respectfully requested.

CONCLUSION

In view of the foregoing amendments and remarks, Applicant believes that the rejected claims are in condition for allowance. Reconsideration, re-examination, and allowance of the rejected claims are respectfully requested. If the Examiner feels that a telephone interview may help further the examination of the present application, the Examiner is encouraged to call the undersigned attorney or his associates at the telephone number listed below.

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